CLAIMS

[1] A broadcast reception device which receives a broadcast signal and performs an operation in accordance with the broadcast signal, said apparatus comprising:

a storage unit operable to store first service notification information which includes service data indicating a service to present to a viewer;

an acquisition unit operable to acquire, from the broadcast signal, second and third service notification information, each of which includes service data indicating a service to present to the viewer, and which differs in format from the other; and

an updating unit operable to update the first service notification information based on the service data included in the second service notification information when said acquisition unit has acquired the second service notification information, and to update the first service notification information based on the service data included in the third service notification information when said acquisition unit has acquired the third service notification information.

[2] The broadcast reception device according to Claim 1,

wherein identification information for identifying the service indicated by the service data is assigned to each unit of service data included in the first, second, and third service notification information, and

said updating unit includes:

a first addition unit operable to add the service data of the second service notification information to the first service notification information, when identification information identical to the identification information of the service data included in the second service notification information is not present in the first

service notification information; and

a second addition unit operable to add the service data of the third service notification information to the first service notification information, when identification information identical to the identification information of the service data included in the third service notification information is not present in the first service notification information.

[3] The broadcast reception device according to Claim 2,

wherein said updating unit further includes:

a first changing unit operable to change the details of the service data included in the first service notification information to the details of the service data included in the second service notification information, when the service data in the first and second service notification information have identical identification information and mutually different details; and

a second changing unit operable to change details of the service data included in the first service notification information to the details of the service data included in the third service notification information, when the service data in the first and third service notification information have identical identification information and mutually different details.

[4] The broadcast reception device according to Claim 3,

wherein plural units of service data are present in the first service notification information, and

said broadcast reception device further comprises:

a search unit operable to acquire the identification information and search for service data corresponding to the identification information within the first service notification information; and

an output unit operable to output the service data

searched-out by said search unit.

[5] The broadcast reception device according to Claim 4, further comprising

a deletion unit operable to delete the service data searched-out by said search unit.

[6] The broadcast reception device according to Claim 1,

wherein the first service notification information is configured of fourth and fifth service notification information which include service data indicating services to present to the viewer, and

said updating unit is operable to update: the fourth service notification information based on the service data included in the second service notification information when said acquisition unit has acquired the second service notification information; and the fifth service notification information based on the service data included in the third service notification information when said acquisition unit has acquired the third service notification information.

[7] The broadcast reception device according to Claim 6,

wherein identification information for identifying the service indicated by the service data is assigned to each unit of service data included in the second, third, fourth, and fifth service notification information, and

said updating unit includes:

a first addition unit operable to add the service data of the second service notification information to the fourth service notification information, when identification information identical to the identification information of the service data included in the second service notification information is not present in the fourth service notification information; and

a second addition unit operable to add the service data of the third service notification information to the fifth service notification information, when identification information identical to the identification information of the service data included in the third service notification information is not present in the fifth service notification information.

[8] The broadcast reception device according to Claim 7, wherein said updating unit further includes:

a first changing unit operable to change details of the service data included in the fourth service notification information to the details of the service data included in the second service notification information, when the service data in the fourth and second service notification information have identical identification information and mutually different details; and

a second changing unit operable to change details of the service data included in the fifth service notification information to the details of the service data included in the third service notification information, when the service data in the fifth and third service notification information have identical identification information and mutually different details.

[9] The broadcast reception device according to Claim 8, wherein priority levels are assigned to the fourth and fifth service notification information, and

said broadcast reception device further comprises:

a search unit operable to acquire the identification information, and to search for service data within a search range while switching the search range from service notification information of a higher priority level to service notification information of a lower priority level, the service data corresponding to the identification information; and

an output unit operable to output the service data searched-out by said search unit.

[10] The broadcast reception device according to Claim 9,

wherein when said search unit finds service data corresponding to the identification information, said output unit is operable to output the service data.

[11] The broadcast reception device according to Claim 9, further comprising

a deletion unit operable to delete the service data searched-out by said search unit.

[12] The broadcast reception device according to Claim 1,

wherein identification information for identifying the service indicated by the service data is assigned to each unit of service data included in the first, second, and third service notification information, and

said updating unit includes:

a first deletion updating unit operable to delete the service data from the first service notification information, when identification information identical to the identification information of the service data included in the first service notification information is not present in the second service notification information; and

a second deletion updating unit operable to delete the service data from the first service notification information, when identification information identical to the identification information of the service data included in the first service notification information is not present in the third service notification information.

[13] The broadcast reception device according to Claim 1,

wherein identification information for identifying the service indicated by the service data is assigned to each unit of service data included in the first, second, and third service notification information, and

said updating unit includes:

a first history addition unit operable to add the service data of the second service notification information to the first service notification information while leaving the service data of the first service notification information as a history, when the service data in the first and second service notification information have identical identification information and mutually different details; and

a second history addition unit operable to add the service data of the third service notification information to the first service notification information while leaving the service data of the first service notification information as a history, when the service data in the first and third service notification information have identical identification information and mutually different details.

[14] The broadcast reception device according to Claim 1,

wherein identification information for identifying the service indicated by the service data is assigned to each unit of service data included in the first, second, and third service notification information, and

said updating unit includes:

a first history setting unit operable to set the service data in an unusable state, as a history, when identification information identical to the identification information of the service data included in the first service notification information is not present in the second service notification information; and

a second history setting unit operable to set the service data in an unusable state, as a history, when identification information

identical to the identification information of the service data included in the first service notification information is not present in the third service notification information.

[15] The broadcast reception device according to Claim 1,

wherein said storage unit includes a volatile memory and a non-volatile memory, and

said updating unit is operable to generate, in advance, a copy of the first service notification information based on the first service notification information stored in said non-volatile memory, store the copy in said volatile memory, and update the copied first service notification information stored in said volatile memory when the first service notification information is to be updated.

[16] The broadcast reception device according to Claim 15,

wherein after finishing the update of the copied first service notification information stored in said volatile memory, said updating unit is operable to write the updated first service notification information into said non-volatile memory.

[17] The broadcast reception device according to Claim 16,

wherein when the details of the updated first service notification information differ from the details of the first service notification information stored as an original in said non-volatile memory, said updating unit is operable to write the updated first service notification information into said non-volatile memory.

[18] The broadcast reception device according to Claim 15,

wherein said updating unit is operable to write the updated first service notification information into said non-volatile memory when requested to perform a write into said non-volatile memory.

[19] The broadcast reception device according to Claim 15,

wherein when writing the updated first service notification information into said non-volatile memory, said updating unit is operable to write the updated first service notification information as a new original into said non-volatile memory after deleting the first service notification information stored as the original from said non-volatile memory.

[20] The broadcast reception device according to Claim 15,

wherein when writing the updated first service notification information into said non-volatile memory, said updating unit is operable to delete the first service notification information stored as the original in said non-volatile memory before the write, after writing the updated first service notification information as a new original into said non-volatile memory.

[21] The broadcast reception device according to Claim 15,

wherein when writing the updated first service notification information into said non-volatile memory, said updating unit is operable to write the updated first service notification information as a new original into said non-volatile memory, and when power is resupplied to said broadcast reception device after the write, said updating unit is operable to generate a copy of the first service notification information written as the new original and store the copy in said volatile memory.

[22] A broadcast receiving method in which a broadcast reception device receives a broadcast signal and performs an operation in accordance with the broadcast signal,

wherein said broadcast reception device comprises a storage unit operable to store first service notification information which includes service data indicating a service to present to a viewer, and

said method comprises:

an acquisition step of acquiring, from the broadcast signal, second and third service notification information, each of which includes service data indicating a service to present to the viewer, and which differs in format from the other; and

an updating step of updating the first service notification information based on the service data included in the second service notification information when the second service notification information has been acquired in said acquisition step, and updating the first service notification information based on the service data included in the third service notification information when the third service notification information has been acquired in said acquisition step.

[23] A program which causes a broadcast reception device to perform an operation in accordance with a received broadcast signal,

wherein said broadcast reception device comprises a storage unit operable to store first service notification information which includes service data indicating a service to present to a viewer, and

said method comprises:

an acquisition step of acquiring, from the broadcast signal, second and third service notification information, each of which includes service data indicating a service to present to the viewer, and which differs in format from the other; and

an updating step of updating the first service notification information based on the service data included in the second service notification information when the second service notification information has been acquired in said acquisition step, and updating the first service notification information based on the service data included in the third service notification information when the third service notification information has been acquired in said acquisition

step.